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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/017,630	12/14/2001	William R. Matz	36968/265389	9447

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EXAMINER	
OUELLETTE, JONATHAN P	

ART UNIT	PAPER NUMBER
3629	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/017,630	MATZ ET AL.	
	Examiner	Art Unit	
	Jonathan Ouellette	3629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 May 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-53* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *20050725, 20050131*.
4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. *20050214*.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Claims 1-20 have been cancelled, and Claims 38-53 have been added; therefore, Claims 21-53 remain pending in application 10/017,630.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claim 47 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

4. Claim 47 recites the limitation "The step of presenting the types of content available" in Claim 21. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. **Claim 21 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

The basis of this rejection is set forth in a two-prong test of:

(1) whether the invention is within the technological arts; and

(2) whether the invention produces a useful, concrete, and tangible result.

7. As an initial matter, the United States Constitution under Art. I, §8, cl. 8 gave Congress the power to "[p]romote the progress of science and useful arts, by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries". In carrying out this power, Congress authorized under 35 U.S.C. §101 a grant of a patent to "[w]hoever invents or discovers any new and useful process, machine, manufacture, or composition or matter, or any new and useful improvement thereof." Therefore, a fundamental premise is that a patent is a statutorily created vehicle for Congress to confer an exclusive right to the inventors for "inventions" that promote the progress of "science and the useful arts". The phrase "technological arts" has been created and used by the courts to offer another view of the term "useful arts". See *In re Musgrave*, 167 USPQ (BNA) 280 (CCPA 1970). Hence, the first test of whether an invention is eligible for a patent is to determine if the invention is within the "technological arts".

8. Further, despite the express language of §101, several judicially created exceptions have been established to exclude certain subject matter as being patentable subject matter covered by §101. These exceptions include "laws of nature", "natural phenomena", and "abstract ideas". See *Diamond v. Diehr*, 450, U.S. 175, 185, 209 USPQ (BNA) 1, 7 (1981). However, courts have found that even if an invention incorporates abstract ideas, such as mathematical algorithms, the invention may nevertheless be statutory subject matter if the invention as a whole produces a "useful, concrete and tangible result." See

State Street Bank & Trust Co. v. Signature Financial Group, Inc. 149 F.3d 1368, 1973, 47 USPQ2d (BNA) 1596 (Fed. Cir. 1998).

9. This "two prong" test was evident when the Court of Customs and Patent Appeals (CCPA) decided an appeal from the Board of Patent Appeals and Interferences (BPAI). See *In re Toma*, 197 USPQ (BNA) 852 (CCPA 1978). In *Toma*, the court held that the recited mathematical algorithm did not render the claim as a whole non-statutory using the Freeman-Walter-Abele test as applied to *Gottschalk v. Benson,* 409 U.S. 63, 175 USPQ (BNA) 673 (1972). Additionally, the court decided separately on the issue of the "technological arts". The court developed a "technological arts" analysis:

> The "technological" or "useful" arts inquiry must focus on whether the claimed subject matter...is statutory, not on whether the product of the claimed subject matter...is statutory, not on whether the prior art which the claimed subject matter purports to replace...is statutory, and not on whether the claimed subject matter is presently perceived to be an improvement over the prior art, e.g., whether it "enhances" the operation of a machine. *In re Toma* at 857.

10. In *Toma*, the claimed invention was a computer program for translating a source human language (e.g., Russian) into a target human language (e.g., English). The court found that the claimed computer implemented process was within the "technological art" because the claimed invention was an operation being performed by a computer within a computer.

11. The decision in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.* never addressed this prong of the test. In *State Street Bank & Trust Co.*, the court found that the "mathematical exception" using the Freeman-Walter-Abele test has little, if any, application to determining the presence of statutory subject matter but rather, statutory

subject matter should be based on whether the operation produces a "useful, concrete and tangible result". See *State Street Bank & Trust Co.* at 1374. Furthermore, the court found that there was no "business method exception" since the court decisions that purported to create such exceptions were based on novelty or lack of enablement issues and not on statutory grounds. Therefore, the court held that "[w]hether the patent's claims are too broad to be patentable is not to be judged under §101, but rather under §§102, 103 and 112." See *State Street Bank & Trust Co.* at 1377. Both of these analysis goes towards whether the claimed invention is non-statutory because of the presence of an abstract idea. Indeed, *State Street* abolished the Freeman-Walter-Abele test used in *Toma*. However, State Street never addressed the second part of the analysis, i.e., the "technological arts" test established in *Toma* because the invention in *State Street* (i.e., a computerized system for determining the year-end income, expense, and capital gain or loss for the portfolio) was already determined to be within the technological arts under the *Toma* test. This dichotomy has been recently acknowledged by the Board of Patent Appeals and Interferences (BPAI) in affirming a §101 rejection finding the claimed invention to be non-statutory. See *Ex parte Bowman*, 61 USPQ2d (BNA) 1669 (BdPatApp&Int 2001).

12. Claims 21 appear to be describing a method that is attempting to determine future actions by subscribers by analyzing data, wherein the data is made available from a database and the method user studies the data to determine/predict future subscriber actions. Thus, this process does not include a distinguishable apparatus, computer implementation, or any

other incorporated technology, and would appear to be an attempt to patent an abstract idea not a "tangible" process and, therefore, non-statutory subject matter.

13. Mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process.

14. In the present case, data is simply *stored* in a database; the data fails to be manipulated by a distinguishable apparatus, computer implementation, or any other incorporated technology in the invention as claimed.

Claim Rejections - 35 USC § 102

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> > (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

16. **Claims 21-25, 27-30, 32-36, 38-44, 48, and 50-53 are rejected under 35 U.S.C. 102(e) as being anticipated by Hendricks et al. (US 6,463,585 B1).**

17. As per **independent Claim 21**, Hendricks discloses a method for predicting content, comprising: receiving content from a local content database (C13 L45-49, local programming – database inherent to programming storage and transmission); receiving content from a nation content database (C13 L6-45, operation center programming –

database inherent to programming storage and transmission); receiving subscriber actions from a subscriber-action database, the subscriber action database storing information related to actions taken by a subscriber while viewing content (C11 L35-65); and processing the content received from the local content database, the content received from the national content database, and the subscriber actions to predict future actions taken by the subscriber (C11 L35-65, develop program lineup and integrated targeted advertising based on predicted/analyzed customer program watching habits).

18. As per Claim 22, Hendricks discloses merging content received from the local content database, the content received from the nation content database, and the information related to actions taken by the subscriber to create subscriber choice information.

19. As per Claim 23, Hendricks discloses at least one of I) correlating the content received from the local content database with the information related to actions taken by the subscriber and ii) correlating the content received from the nation content database with the information related to actions taken by the subscriber.

20. As per Claim 24, Hendricks discloses at least one of i) categorizing the content received from the local content database and ii) categorizing the content received from the national content database.

21. As per Claim 25, Hendricks discloses wherein the step of processing the content received from the local content database, the content received from the national content database, and the subscriber actions comprises at least one of i) analyzing actions taken during preceding content and ii) analyzing action taken during succeeding content.

22. As per new Claim 38, Hendricks discloses creating tailored media content that corresponds to the predicted future actions.

23. As per new Claim 39, Hendricks discloses wherein the tailored media content comprises content bundled with an advertisement for a product or service.

24. As per new Claim 40, Hendricks discloses distributing the tailored media content to the subscriber.

25. As per new Claim 41, Hendricks discloses tracking popularity of the tailored media content for a period of time.

26. As per new Claim 42, Hendricks discloses creating tailored media content that corresponds to past subscriber actions.

27. As per new Claim 43, Hendricks discloses creating tailored media content that corresponds to a demographic of the subscriber.

28. As per new Claim 44, Hendricks discloses creating tailored media content that corresponds to a purchasing history of the subscriber.

29. As per new Claim 48, Hendricks discloses providing the subscriber a log of received content.

30. As per new Claim 50, Hendricks discloses wherein the content received by the subscriber comprises an amount of time that an advertisement was received.

31. As per new Claim 51, Hendricks discloses analyzing the subscriber actions to determine when the subscriber initially receives an entire advertisement but subsequently only receives portion of the advertisement.

32. As per **independent Claim 27**, Hendricks discloses a system for predicting content, comprising: a head end facility receiving i) local content from a local content database (C13 L45-49, local programming), ii) national content from a national content database (C13 L6-45, operation center programming), and iii) subscriber actions from a subscriber-action database, the subscriber-action database storing information related to actions taken by a subscriber while viewing content (C11 L35-65); a processor processing the local content, the national content, and the subscriber actions to predict future actions taken by the subscriber; the processor creating tailored media content that corresponds to the predicted future actions; and a server distributing the tailored media content to the subscriber (C11 L35-65, develop program lineup and integrated targeted advertising based on predicted/analyzed customer program watching habits).
33. As per Claim 28, Hendricks discloses wherein the processor at least one of i) correlates the local content with the information related to actions taken by the subscriber and ii) correlates the national content with the information related to actions taken by the subscriber.
34. As per Claim 29, Hendricks discloses wherein the processor at least one of I) categorizes the local content and ii) categorizes the nation content.
35. As per Claim 30, Hendricks discloses wherein the processor at least one of I) analyzes actions taken during preceding content and ii) analyzes actions taken during succeeding content.
36. As per **independent Claim 32**, Hendricks discloses a computer program product comprising a computer readable medium including instructions for performing the steps:

analyzing content from a local content database (C13 L45-49, local programming); analyzing content from a nation content database (C13 L6-45, operation center programming); analyzing subscriber actions from a subscriber-action database, the subscriber action database storing information related to actions taken by a subscriber while viewing content (C11 L35-65); and predicting future actions taken by the subscriber (C11 L35-65, develop program lineup and integrated targeted advertising based on predicted/analyzed customer program watching habits).

37. As per Claim 33, Hendricks discloses instructions for performing the step of merging information related to local programming, information related to national programming, and information related to actions taken by the subscriber to create subscriber choice information.

38. As per Claim 34, Hendricks discloses instructions for performing at least one of the steps of i) correlating information related to local programming with the information related to actions taken by the subscriber and ii) correlating information related to national programming with the information related to actions taken by the subscriber.

39. As per Claim 35, Hendricks discloses instructions for performing at least one of the steps of i) categorizing information related to local programming and ii) categorizing information related to national programming.

40. As per Claim 36, Hendricks discloses instructions for performing at least one of the steps of i) analyzing actions taken during preceding content and ii) analyzing actions taken during succeeding content.

41. As per new Claim 52, Hendricks discloses instructions for accessing the subscriber actions take by the subscriber while accessing and viewing content.

42. As per new **independent Claim 53**, Hendricks discloses a device, comprising: a processor communicating with memory, the processor executing software stored in the memory to receive content from a local content database (C13 L45-49, local programming); receive content from a nation content database (C13 L6-45, operation center programming); communicate subscriber actions comprising information related to actions taken by a subscriber while viewing the content (C11 L35-65); and predict future actions taken by the subscriber (C11 L35-65, develop program lineup and integrated targeted advertising based on predicted/analyzed customer program watching habits).

Claim Rejections - 35 USC § 103

43. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

44. **Claims 26, 31, 37, 45-47, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hendricks in view of Ludtke et al. (US 6,202,210).**

45. As per Claims 26, 31, 37, and 45, Hendricks fails to expressly disclose wherein the processor receives actions taken by the subscriber to receive an alternate source of content.

46. Ludtke teaches monitoring viewer histories to include programming from additional AV sources/DVD player for marketing purposes (Fig.5, C7 L25-39).

47. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included wherein the processor receives actions taken by the subscriber to receive an alternate source of content, as disclosed by Ludtke in the system disclosed by Hendricks, for the advantage of providing a method/system for predicting content, with the ability to increase system effectiveness by analyzing customer viewing histories on all available programming sources.

48. As per new Claim 46, Hendricks and Ludtke disclose presenting types of content available to the subscriber during a period of time, with the types of content comprising an alternate video source.

49. As per new Claim 47, Hendricks and Ludtke disclose wherein the step of presenting the types of content available to the subscriber during the period of time comprises integrating content available from the alternate video source into an electronic programming guide.

50. As per new Claim 49, Hendricks and Ludtke disclose merging the content received from the local content database, the content received from the national content database, the subscriber actions, and information related to an alternate video source to determine what content is received by the subscriber.

Response to Arguments

51. Applicant's arguments filed 5/2/2005, with respect to Claims 21-53, have been considered but are moot in view of the new ground(s) of rejection.

52. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

53. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

54. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Ouellette whose telephone number is (703) 605-0662. The examiner can normally be reached on Monday through Thursday, 8am - 5:00pm.

55. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Weiss can be reached on (703) 308-2702. The fax phone numbers for

the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-3597 for After Final communications.

56. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-5484.

jb
August 31, 2005

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